

Virginia Regulatory Town Hall

Final Regulation Agency Background Document

Agency Name:	State Air Pollution Control Board
Regulation Title:	Regulation for Emissions Trading
Primary Action:	9 VAC 5 Chapter 140 (9 VAC 5-140-10 et seq.)
Secondary Action(s):	None
Action Title:	NO _x Emissions Budget Trading Program (Rev. D98)
Date:	

Please refer to the Administrative Process Act (§ 2.2-4000 et seq. of the Code of Virginia), Executive Order Twenty-Five (98), and the Virginia Register Form, Style and Procedure Manual for more information and other materials required to be submitted in the final regulatory action package.

Summary

Please provide a brief summary of the new regulation, amendments to an existing regulation, or the regulation being repealed. There is no need to state each provision or amendment or restate the purpose and intent of the regulation.

The regulation establishes a NO_x Budget Trading Program as a means of mitigating the interstate transport of ozone and nitrogen oxides including the following provisions: permitting allowance methodology, monitoring, banking, compliance supplement pool, compliance determination and opt-in provisions for sources not covered by the regulation.

Beginning May 31, 2004, electric generating units with a nameplate capacity greater than 25 MWe and non-electric generating units above 250 mmBtu will be subject to the provisions of the regulation. NO_x emissions from subject units shall be subject to a specific limited budget (measured in tons) during the summer months of May 1 through September 31, otherwise known as the control period. The NO_x budget shall be determined through a methodology based upon emission rates multiplied by heat input. If a unit does not use all of its allowances for a specific control period, those extra tons may be banked for future use or sold. If a unit exceeds the budget limit, additional allowances may be purchased or the source may use banked allowances to offset the amount of NO_x generated above the budget limit.

An allocation set-aside budget is available to accommodate new sources that receive permits and commence operation after the distribution to the qualifying units (those in operation at least two years before the distribution date).

Emissions will need to be monitored according to 40 CFR Part 75 for all sources subject to the regulation and for any sources wishing to opt-in to the program.

A compliance supplement pool is provided for sources that generate early reduction credits or demonstrate “undue risk”. The allowances from the pool are good for only two years and cannot be banked after that two-year period.

Substantial Changes Made Since the Proposed Stage

Please briefly and generally summarize any substantial changes made since the proposed action was published. Please provide citations of the sections of the proposed regulation that have been substantially altered since the proposed stage.

- The applicability definitions and criteria have been changed to use the provisions from 40 CFR Part 97 for non-EGUs, as opposed to those found in 40 CFR Part 96. [9 VAC 5-140-20 and 40 A]
- The 25 ton exemption has been changed to limit its use to only those units that burn gas or oil and to use the allocation methodology in 40 CFR Part 97 to allocate allowances. [9 VAC 5-140-40 B]
- The values of the emissions budgets for both EGUs and non-EGUs and the compliance supplement pool have been changed to use the EPA numbers from 40 CFR Part 97. [9 VAC 5-140-910, 920 and 930]
- The method for promulgating the emissions budget for EGUs and the compliance supplement pool has been changed to incorporate the EPA numbers (from 40 CFR Part 97) by reference, as opposed to including the budget numbers in the regulation. [9 VAC 5-140-910 and 920]
- The initial allocations for the individual units are not included in the regulation. The initial and subsequent allocations will be accomplished outside the regulatory process. [9 VAC 5-140-940 and 950]
- The allocation periods have been changed to use the periods in 40 CFR Part 97, as opposed to the initial allocation period of ten years and subsequent period of one year. 40 CFR Part 97 provides the same initial and subsequent allocation periods (five years) for both EGUs and non-EGUs. [9 VAC 5-140-410 A through C and 420 A through C]
- The basis for the allocations for new sources (those commencing operation after May 1, 1998) has been changed to provide that the allocation be based on the lesser of the most stringent state or federal emission limitation or the core emission rate, as opposed to the lesser of the permit limit or core emission rate. In cases where a unit is subject to a permit which provides for the use of multiple fuels, the primary fuel shall be used as the basis to determine the most stringent state or federal NO_x emissions limitation. [9 VAC 5-140-20 and 420 B, C and D]
- Provisions for a new source allocation set aside have been added to the regulation. The set aside is formed by withholding allowances from both (EGU and non-EGU) source categories. The set aside from the EGU budget is five percent for the years

2004 through 2008 and two percent for the years 2009 & later. The set-aside from the non-EGU budget is the difference between the sum of the initial allocations for the individual units and the non-EGU emissions budget in 40 CFR Part 97. [9 VAC 5-140-20 and 420 D and E]

- The methodology in 40 CFR Part 97 is used for distribution of the new source set-asides for both EGUs and non-EGUs. Although the set aside comes from the emissions budget for each of the two source categories, there is only one set-aside that may be distributed to any unit regardless of source category. The set-aside is distributed pro-rata to all requesting a portion of the set-aside. This provides a system whereby any unit is eligible for the set-aside if it did not receive an initial allocation and was issued a first time permit prior to January 1 of the year of distribution of the set-asides. EPA will confiscate the allocations for any control period, or portion thereof, during which the unit does not operate. [9 VAC 5-140-420 D, E and F]
- The regulation (which is based on 40 CFR Part 96) has been changed to be consistent with some of the more flexible provisions of 40 CFR Part 97. [throughout]

Statement of Final Agency Action

Please provide a statement of the final action taken by the agency, including the date the action was taken, the name of the agency taking the action, and the title of the regulation.

On May 21, 2002, the State Air Pollution Control Board adopted a final regulation entitled "Regulation for Emissions Trading" (9 VAC 5 Chapter 140). The regulation is to be effective as provided in § 2.2-4012 B of the Code of Virginia.

Basis

Please identify the section number and provide a brief statement relating the content of the statutory authority to the specific regulation adopted. Please state that the Office of the Attorney General has certified that the agency has the statutory authority to adopt the regulation and that it comports with applicable state and/or federal law.

Section 10.1-1308 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare. Section 10.1-1322.3 of the Code of Virginia indicates that the Board may promulgate regulations to provide for an emissions trading program to achieve and maintain the NAAQS. The banking and trading program shall result in net air emission reductions, create economic incentive for reducing air emissions and allow for economic growth. In developing the regulations, the Board shall consider (i) the definition and use of emissions reduction credits from mobile and stationary sources, (ii) offsets, (iii) interstate or regional trading, (iv) mechanisms needed to facilitate trading and banking, and (v) emissions allocations. However, no regulation shall prohibit the direct trading of credits or allowances between private industries provided such trades do not adversely

impact air quality in Virginia. Written assurance from the Office of the Attorney General that (i) the State Air Pollution Control Board possesses the statutory authority to promulgate the proposed regulation and that (ii) the proposed regulation comports with the applicable state and/or federal law is available upon request.

Purpose

Please provide a statement explaining the rationale or justification of the regulation as it relates to the health, safety or welfare of citizens.

The purpose of the regulation is to establish general provisions addressing applicability, permitting, allowance allocation, excess emissions, monitoring, and opt-in provisions to create a Virginia NO_x Budget Trading Program as a means of mitigating the interstate transport of ozone and nitrogen oxides in order to protect public health and welfare. The regulation is being proposed to create an enforceable mechanism to assure that collectively, all affected sources will not exceed the total NO_x emissions budget established by regulation for the year 2007 ozone season and to provide the regulatory basis for a program under which the creation, trading (buying and selling) and registering of emission credits can occur.

Substance

Please identify and explain the new substantial provisions, the substantial changes to existing sections, or both where appropriate. Please note that a more detailed discussion is required under the statement providing detail of the changes.

1. The regulation applies to electric generating units (EGUs) with a nameplate capacity greater than 25 MWe and non-electric generating units (non-EGUs) above 250 mmBtu, hereafter referred to as the core source categories. A "unit" is defined as a fossil fuel-fired stationary boiler, combustion turbine, or combined cycle system.
2. Core source units smaller than 25 tons per control period (t/cp) that burn gas or oil are exempt.
3. State wide NO_x emissions budgets for both EGUs (17,091 t/cp) and non-EGUs (4,104 t/cp) are included, derived from the EPA numbers in 40 CFR Part 97.
4. Sources must be in compliance by May 31, 2004. Trading is allowed anywhere in EPA's NO_x emissions trading domain. A unit's emissions during the control period cannot exceed the number of allowances in its account. A true up takes place at the end of each control period.
5. Initial allocations for core source categories are based on the baseline heat input multiplied by the core emission rate normalized over the state budget. The core emission rate for EGUs is 0.15 lb/mmBtu; for non-EGUs, 0.17 lb/mmBtu. The baseline

heat input (used to calculate allocations) for existing core sources is determined by averaging the two highest years of the immediate preceding 5 years.

6. Initial allocations for units in operation on May 1, 1998 are issued on July 1, 2002 for the control periods 2004 - 2008.
7. Subsequent allocations are issued every five years beginning April 1, 2006 for a block of five control periods.
8. Provisions for a new source allocation set aside are included. The set aside is formed by withholding allowances from both (EGU and non-EGU) source categories. The set aside from the EGU budget is five percent (855 t/cp) for the years 2004 through 2008 and two percent (342 t/cp) for the years 2009 & later. The set-aside from the non-EGU budget is the difference between the sum of the initial allocations for the individual units and the non-EGU emissions budget (1,000 t/cp).
9. The methodology for distribution of the new source set-asides for both EGUs and non-EGUs is included. Although the set aside comes from the emissions budget for each of the two source categories, there is only one set-aside that may be distributed to any unit regardless of source category. The set-aside is distributed pro-rata to all requesting a portion of the set-aside. This provides a system whereby any unit is eligible for the set-aside if it did not receive an initial allocation and was issued a first time permit prior to January 1 of the year of distribution of the set-asides. EPA will confiscate the allocations for any control period, or portion thereof, during which the unit does not operate.
10. Baseline allocations for new sources (commencing operation after May 1, 1998) are based on the more stringent of the core emission rate or the most stringent state or federal emissions limitation. In cases where a unit is subject to a permit which provides for the use of multiple fuels, the primary fuel shall be used as the basis to determine the most stringent state or federal NO_x emissions limitation.
11. Sources may bank or trade any allowances not used during a specific control period.
12. A compliance pool is established which allows for allocations from the pool for early reductions and on a "needs" basis. Allocations from the pool (5,504 tons) will be distributed to the sources prior to May 1, 2004. Allocations from the pool are valid for two years (2004 and 2005).
13. Smaller sources within the core source categories are not mandated to be included in the program; however, smaller sources within the core source categories are allowed to opt-in to the program. Sources that opt-in the program have a separate budget. Baseline determined for opt-ins is based upon the previous year's emissions.

14. All sources participating in the program, including those that chose to opt-in, must meet the monitoring requirements of 40 CFR Part 75 of the Code of Federal Regulations.

15. Sources found to be out of compliance will be forced to surrender allowances for the next year on a ratio of 3:1, i.e. for every ton over their budget, three tons will be forfeited from the next year's allocation.

Issues

Please provide a statement identifying the issues associated with the regulatory action. The term "issues" means: 1) the primary advantages and disadvantages to the public of implementing the new or amended provisions; and 2) the primary advantages and disadvantages to the agency or the Commonwealth. If there are no disadvantages to the public or the Commonwealth, please include a sentence to that effect.

1. Public: The primary advantage to the general public is that air quality will improve through a program designed to maximize market forces to reduce pollution in the most cost-effective manner. The cost of compliance is a key issue for the citizens of the Commonwealth since the utility industry is affected by this regulation. If the cost of control is excessive, the additional costs may be passed on to the consumer in the form of rate hikes.

This regulation provides for the trading of NO_x allowances to offset the cost of compliance. This approach provides more flexibility for compliance options for the sources affected while still protecting air quality. A compliance demonstration is required at the end of the ozone season. Sources must demonstrate that they have operated equipment such that the NO_x emissions are either equal to or below the allocations. Tons of NO_x may be purchased or sold according to the need of the source owner; NO_x credits can also be generated as early reduction credits or the source may choose to bank credits to be used for compliance demonstrations in future years. Sources not subject to the regulation may participate in the program as opt-in sources provided specific conditions are met.

Disadvantages to the regulated sources are in the areas of costs for control and monitoring. Sources will need to monitor emissions with continuous emission monitors (CEMs). If sources do not currently have CEMs they will need to install the monitoring equipment to participate in the program. The total state budget for NO_x allowances may not be sufficient to meet the needs if all sources were operating at maximum capacity. Some sources may need to install control equipment. In addition, new sources may need to purchase NO_x allowances for several years until they are included into the allocation system as the regulation provides only a limited set-aside budget for new sources.

2. Department: The advantages for the Department are in the area of effective compliance and reduced inspections. The regulation provides procedures for continuous or process parameter monitoring of emissions for determining compliance with the NO_x emissions standard. This will result in very accurate data to be used for compliance demonstrations or enforcement actions when necessary. EPA will

administer the trading and banking aspects of the regulation thereby avoiding any additional costs that would be associated with that activity.

Disadvantages include the need for the Department to review the compliance demonstrations and monitoring plans. More time may be involved if a source chooses to utilize early reduction credits (ERCs), credits from other states or banked credits. Every five years a new NO_x allocation will need to be computed and distributed. Each year a new NO_x allocation will need to be computed and distributed for new sources. The new NO_x allocations will need to be incorporated into either the source's Title V permit at the appropriate time.

Public Comment

Please summarize all public comment received during the public comment period and provide the agency response. If no public comment was received, please include a statement indicating that fact.

A summary and analysis of the public testimony, along with the basis for the decision of the Board, is attached. The summary and analysis addresses those comments received pursuant to the opportunity for oral and written comments under § 2.2-4007 J of the Code of Virginia.

Detail of Changes

Please detail any changes, other than strictly editorial changes, made since the publication of the proposed regulation. This statement should provide a section-by-section description of changes.

1. Article 1 establishes the general provisions covering the NO_x budget trading program, specifically: purpose; definitions; measurements, abbreviations, and acronyms; applicability; retired unit exemptions; standard requirements; and computation of time.
 - The 25 ton exemption has been changed to limit its use to only those units that burn gas or oil and to use the allocation methodology in 40 CFR Part 97 to allocate allowances.
 - The applicability definitions and criteria have been changed to use the provisions from 40 CFR Part 97 for non-EGUs, as opposed to those found in 40 CFR Part 96.
2. Article 2 establishes the provisions covering NO_x authorized account representatives for NO_x budget sources, specifically: authorization and responsibilities of the authorized account representatives; alternate authorized account representatives; changing the authorized account representative and the alternate authorized account representative; changes in the owners and operators; account certificate of representation; and objections concerning the authorized account representative.

3. Article 3 establishes the provisions covering NO_x budget permits, specifically: general permit requirements; submission of permit applications; information requirements for the permit applications; permit contents; effective date of initial permits; and permit revisions.

4. Article 4 establishes the provisions covering compliance certification, specifically: compliance certification reports; and action of the board and EPA on compliance certifications.

5. Article 5 establishes the provisions covering NO_x allowance allocations, specifically: state trading program budget; timing requirements for allowance allocations; allowance allocations; and compliance supplement pool.

- The allocation periods have been changed to use the periods in 40 CFR Part 97, as opposed to the initial allocation period of ten years and subsequent period of one year. 40 CFR Part 97 provides the same initial and subsequent allocation periods (five years) for both EGUs and non-EGUs.
- The basis for the allocations for new sources (those commencing operation after May 1, 1998) has been changed to provide that the allocation be based on the lesser of the most stringent state or federal emission limitation or the core emission rate, as opposed to the lesser of the permit limit or core emission rate. In cases where a unit is subject to a permit which provides for the use of multiple fuels, the primary fuel shall be used as the basis to determine the most stringent state or federal NO_x emissions limitation.
- Provisions for a new source allocation set aside for have been added to the regulation. The set aside is formed by withholding allowances from both (EGU and non-EGU) source categories. The set aside from the EGU budget is five percent for the years 2004 through 2008 and two percent for the years 2009 & later. The set-aside from the non-EGU budget is the difference between the sum of the initial allocations for the individual units and the non-EGU emissions budget in 40 CFR Part 97.
- The methodology in 40 CFR Part 97 is used for distribution of the new source set-asides for both EGUs and non-EGUs. Although the set aside comes from the emissions budget for each of the two source categories, there is only one set-aside that may be distributed to any unit regardless of source category. The set-aside is distributed pro-rata to all requesting a portion of the set-aside. This provides a system whereby any unit is eligible for the set-aside if it did not receive an initial allocation and was issued a first time permit prior to January 1 of the year of distribution of the set-asides. EPA will confiscate the allocations for any control period, or portion thereof, during which the unit does not operate.

6. Article 6 establishes the provisions covering the NO_x allowance tracking system, specifically: allowance tracking system accounts; establishment of accounts;

responsibilities of authorized account representatives; recordation of allowance allocations; compliance; banking; account error; and closing of general accounts.

7. Article 7 establishes the provisions covering NO_x allowance transfers, specifically: scope and submission of allowance transfers; EPA recordation; and notification.

8. Article 8 establishes the provisions covering monitoring and reporting, specifically: general requirements; initial certification and recertification procedures; out of control periods; notifications; recordkeeping and reporting; petitions; and additional requirements to provide heat input data for allocations purposes.

- Some of the less burdensome provisions of 40 CFR Part 97 have been incorporated.

9. Article 9 establishes the provisions covering individual NO_x unit opt-ins, specifically: applicability; general; authorized account representative; applying for budget opt-in permit; opt-in process; budget opt-in permit contents; withdrawal from NO_x budget trading program; change in regulatory status; and allowance allocations to opt-in units.

10. Article 10 establishes the tons per control period of NO_x allowances and credits for the state trading program budget and compliance pool, specifically: state trading program budget allowances; compliance supplement pool credits; total electric generating unit allowance allocations; total non-electric generating unit allowance allocations; individual electric generating unit allowance allocations; and individual non-electric generating unit allowance allocations.

- The values of the emissions budgets for both EGUs and non-EGUs and the compliance supplement pool have been changed to use the EPA numbers from 40 CFR Part 97.
- The method for promulgating the emissions budget for EGUs and the compliance supplement pool has been changed to incorporate the EPA numbers (from 40 CFR Part 97) by reference, as opposed to including the budget numbers in the regulation.
- The initial allocations for the individual units are not included. The initial and subsequent allocations will be accomplished outside the regulatory process.

11. Throughout:

- The regulation (which is based on 40 CFR Part 96) has been changed to be consistent with the more flexible provisions of 40 CFR Part 97.

Family Impact Statement

Please provide an analysis of the regulatory action that assesses the impact on the institution of the family and family stability including the extent to which the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

It is not anticipated that this regulation will have a direct impact on families. However, there will be positive indirect impacts in that the regulation will ensure that the Commonwealth's air pollution control regulations will function as effectively as possible, thus contributing to reductions in related health and welfare problems.

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